Statement of Work Contract Number: EP-W-11-009/EP-W-11-010/EP-W-11-011 RFO Number: 15

I. TITLE: ASSESSMENT of EXTENT TO WHICH GREEN BUILDING STANDARDS ENCOURAGE EPA'S RECOMMENDED GREEN BUILDING PRACTICES

II. PERIOD OF PERFORMANCE:

From: Date of Award To: January 26, 2013

III. BACKGROUND:

Green building is the practice of maximizing the efficiency with which buildings and their sites use resources — energy, water, land, and materials — while minimizing impacts on human health and the environment, throughout the complete building life cycle — from siting, design, and construction to operation, renovation, and reuse.

The US Environmental Protection Agency's Green Building Workgroup (GBWG) was formed to play two critical roles in advancing effective, high-performance green building approaches: 1) To help ensure that the term *green building* is associated with those building practices and products that deliver the greatest and most measurable and verifiable environmental improvements and 2) To inform decision-making by communities, local building officials, other government agencies, builders, and other key stakeholders.

In 2009, the GBWG formed a set of recommended green building practices ("GB practices") to use for evaluating and influencing the content of green building standards (including model codes, rating systems, and certification programs) that have been published or that are being developed by standards development organizations. The GB practices cover a wide range of environmental and human health issues and address in specific terms the principles and goals that the Agency aims to promote among green building stakeholders. The GBWG is now revising its set of GB practices for use in evaluating the green building standards that are available to the public in 2012. One major difference between the 2009 and 2012 set of practices is that the revised set contains no practices that focus specifically on energy efficiency; the single remaining energy-focused practice covers the use of renewable energy. (This change does not reflect a decreased level of interest in energy efficiency at the Environmental Protection Agency, but merely reflects the 2012 interests of the Green Building Workgroup membership.)

Although the GBWG is a cross-Agency initiative, the Office of Sustainable Communities coordinates the development of the GB practices as well as the GBWG's participation in the development and revision of green building standards developed by the private sector.

IV. PURPOSE AND OBJECTIVE:

The purpose of this statement of work is to gain contractor support for 1) assessing the degree to which available green building standards encourage EPA's 2012 set of GB practices and 2) drafting recommendations to offer to communities that are considering the adoption of green building standards. The 2009 set of GB practices is attached in order to assist interested contractors in understanding the work that is required. It is important to note, however, that the 2012 set of GB practices will be somewhat shorter and narrower in scope.

V. QUALITY ASSURANCE (QA) REQUIREMENTS

Check [] Yes if the following is required or [X] NO if the following is not required. The Contractor shall submit with their technical proposal a written Quality Assurance Project Plan for any project that is developing environmental measurements or a Quality Assurance Supplement to the Quality Management Plan for any project which generates environmental data using models.

VI. TASKS AND DELIVERABLES:

The TO COR will provide the contractor with EPA's 2012 set of recommended green building practices ("GB practices").

The TO COR will <u>not</u> provide the following green building standards, which, together with the GB practices, form the basis for the work described in Tasks 1-7*:

Green Building Standards

- 1. International Code Council's 2012 International green Construction Code.
- 2. American Society of Heating, Refrigerating and Air-Conditioning Engineers' Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings (ANSI/ASHRAE/USGBC/IES Standard 189.1-2011)
- 3. National Association of Home Builders' *National Green Building Standard*, 2012 (ICC 700-2012) (slated to become available by September 30, 2012)
- 4. Green Building Initiative's Green Globes for New Construction
- 5. Green Building Initiative's Green Globes for Continual Improvement of Existing Buildings
- 6. US Green Building Council's LEED 2012 Building Design & Construction (slated to become available in fall 2012)

- 7. US Green Building Council's LEED 2012 Existing Buildings Operations & Maintenance (slated to become available in fall 2012)
- * Over the course of work under the task order, the TO COR may issue technical direction to substitute other green building standards for standards in the above list on which the contractor has not yet begun work. Substituted standards would be comparable in length and complexity to those standards that they replace in the list.

Requirements Common to All Tasks

For each of the tasks below the contractor shall prepare a report that describes the degree to which the given standard encourages a builder, developer, and/or building owner to follow each practice included in the 2012 set of GB practices, and the specific differences between the standard's provisions and the GB practice.

Findings might include, for example:

- If the model code is adopted as a local ordinance and enforced as a mandatory building code, Practice #4A would be required of all new commercial buildings in the community, but Practice #5C would not be required, and Practice #1B may or may not be required, depending on whether the community decides to activate the option.
- The green building rating system requires an approach that is similar to Practice #6A, but which falls short in achieving a certain performance level, specifically...
- The rating system includes Practice #2D in its selection of credits, but a builder is not required to select that credit and can achieve all levels of certification without selecting that credit.
- For Practice 6C, the model code requires a maximum of 200 feet from the building, whereas EPA's GB practice calls for a maximum of 50 feet.
- The rating system provides a credit for buildings that achieve practice 4A, but only for new commercial construction, not for existing buildings or schools, as EPA recommends.

When the contractor finds that the standard falls short of fully requiring a practice, the contractor shall include in the report:

- a) a description of the degree to which the practice is encouraged.
- b) a statement, written for community decision-makers, with recommendations on how the community could encourage/further encourage the practice (e.g., "When adopting this model code as an ordinance, consider revising section III.A.4 such that it raises the required recycling rate from 20% to 50%." or "In your green building program, you may want to consider converting Credit B to a prerequisite.")

If the contractor requires clarification of a practice in order to complete an assessment, the contractor shall e-mail a question to the TOPO. The TOPO shall arrange a response from the appropriate Green Building Workgroup member through e-mail to, and/or a conference call with, the contractor as necessary.

EPA plans to use these reports in at least two ways $\frac{1}{2}$:

- 1) as the basis for its comments to standard development organizations (e.g., the International Code Council, the US Green Building Council, etc.) on ways to improve the green building standards; and
- 2) as the basis for suggestions to communities which are evaluating the possibility of adopting green building codes or developing green building programs in state or local jurisdictions.

The TO COR will review all deliverables in draft form and provide revisions and/or comments to the contractor. The contractor shall prepare the final deliverables incorporating the TO COR's comments. The Contractor shall provide the TO COR with electronic versions of all deliverables.

Contractor personnel shall at all times identify themselves as Contractor employees and shall not present themselves as EPA employees. Furthermore, they shall not represent the views of the U.S. Government, EPA, or its employees. In addition, the Contractor shall not engage in inherently governmental activities, including but not limited to actual determination of EPA policy and preparation of documents on EPA letterhead.

Task 1: Assessment of the *International green Construction Code* (Contract Reference: II.A.2, Development & Analysis of Policy Options, paragraph b.)

By May 31, 2012, the contractor shall deliver to the TO COR a draft report based on an assessment of the *International green Construction Code* (Green Building Standard #1 in above list) and fulfilling the requirements described under "Requirements Common to all Tasks" above.

Within two weeks of receiving comments from the TO COR on the initial draft, the contractor shall revise the report accordingly and submit the second draft to the TO COR.

If the TO COR provides comments on the second draft, within one week of receiving the comments, the contractor shall revise the report and submit a final report to the TO COR.

¹ These activities are not part of the task order; they are provided for information purposes only.

The TO COR will notify the contractor whether the report has been accepted. If the report is unacceptable, the TO COR may provide technical direction to request additional revisions to the final draft report.

Task 2: Second Assessment (Contract Reference: II.A.2, Development & Analysis of Policy Options, paragraph b.)

Within one month of the TO COR's acceptance of the Task 1 final deliverable or of the TO COR's technical direction to begin work under Task 2, whichever comes first, the contractor shall deliver to the TO COR a draft report based on an assessment of the second, third, fourth, or fifth green building standard in the list above and fulfilling the requirements described under "Requirements Common to all Tasks."

Within two weeks of receiving comments from the TO COR on the initial draft the contractor shall revise the report accordingly and submit the second draft to the TO COR.

The TO COR will either accept the report or provide additional comments to the contractor.

If comments are provided, within one week of receiving the comments the contractor shall revise the report and submit a final report to the TO COR.

Task 3: Third Assessment (Contract Reference: II.A.2, Development & Analysis of Policy Options, paragraph b.)

Within one month of delivering the initial draft report under Task 2 to the TO COR, the contractor shall deliver to the TO COR a draft report based on an assessment of the second, third, fourth, or fifth green building standard in the list above (i.e. a standard not yet assessed in a task above) and fulfilling the requirements described under "Requirements Common to all Tasks."

Within two weeks of receiving comments from the TO COR on the initial draft report, the contractor shall revise the report accordingly and submit the second draft to the TO COR.

The TO COR will either accept the report or provide additional comments to the contractor.

If comments are provided, within one week of receiving the comments the contractor shall revise the report and submit a final report to the TO COR.

Task 4: Fourth Assessment (Contract Reference: II.A.2, Development & Analysis of Policy Options, paragraph b.)

Within one month of delivering the initial draft report under Task 3 to the TO COR, the contractor shall deliver to the TO COR a draft report based on an assessment of the second, third, fourth, or fifth green building standard in the list above (i.e. a standard not yet assessed in a task above) and fulfilling the requirements described under "Requirements Common to all Tasks."

Within two weeks of receiving comments from the TO COR on the initial draft report, the contractor shall revise the report accordingly and submit the second draft to the TO COR.

The TO COR will either accept the report or provide additional comments to the contractor.

If comments are provided, within one week of receiving the comments the contractor shall revise the report and submit a final report to the TO COR.

Task 5: Fifth Assessment (Contract Reference: II.A.2, Development & Analysis of Policy Options, paragraph b.)

Within one month of delivering the initial draft report under Task 4 to the TO COR, but no later than November 30, 2012, the contractor shall deliver to the TO COR a draft report based on an assessment of the second, third, fourth, or fifth green building standard in the list above (i.e. a standard not yet assessed in a task above) and fulfilling the requirements described under "Requirements Common to all Tasks."

Within two weeks of receiving comments from the TO COR on the initial draft report, the contractor shall revise the report accordingly and submit the second draft to the TO COR.

The TO COR will either accept the report or provide additional comments to the contractor.

If comments are provided, within one week of receiving the comments the contractor shall revise the report and submit a final report to the TO COR.

Task 6: Assessment of the LEED Green Building Standard on Building Design and Construction (Contract Reference: II.A.2, Development & Analysis of Policy Options, paragraph b.)

Within one month after the public release date of LEED 2012 but no later than December 31, 2012, the contractor shall deliver to the TO COR a draft report based on an assessment of LEED 2012 Building Design & Construction (i.e. green building standard #6) and fulfilling the requirements described under "Requirements Common to all Tasks"

above.

Within two weeks of receiving comments from the TO COR on the initial draft report, the contractor shall revise the report accordingly and submit the second draft to the TO COR.

The TO COR will either accept the report or provide additional comments to the contractor.

If comments are provided, within one week of receiving the comments the contractor shall revise the report and submit a final report to the TO COR.

Task 7: Assessment of the LEED Green Building Standard on Existing Buildings Operations & Maintenance (Contract Reference: II.A.2, Development & Analysis of Policy Options, paragraph b.)

Within one month after the public release date of LEED 2012 but no later than December 31, 2012, the contractor shall deliver to the TO COR a draft report based on an assessment of LEED 2012 Existing Buildings Operations & Maintenance (i.e. green building standard #7) and fulfilling the requirements described under "Requirements Common to all Tasks" above.

Within two weeks of receiving comments on the initial draft report from the TO COR, the contractor shall revise the report accordingly and submit the second draft to the TO COR.

The TO COR will either accept the report or provide additional comments to the contractor.

If comments are provided, within one week of receiving the comments the contractor shall revise the report and submit a final report to the TO COR.

SCHEDULE FOR DELIVERABLES:

The contractor shall provide the following specific deliverables to the EPA TO COR:

	DELIVERABLE	FORM AND	DUE DATE
		QUANTITY	
Task 1:	Initial draft report	1 copy in Word (delivered	May 31, 2012
		electronically)	
	Revised draft report	1 copy in Word (delivered	Within 2 weeks of
		electronically)	receiving comments

			from the TO COR
			on initial draft
	Final report	1 copy in Word (delivered	Within 1 week of
	_	electronically)	receiving comments
			from the TO COR
			on the revised draft
Task 2:	Initial draft report	1 copy in Word (delivered	Within one month
		electronically)	of TO COR's
			acceptance of Task
			1 Final report or of
			technical direction
			to begin Task 2,
			whichever is earlier
	Revised draft report	1 copy in Word (delivered	Within 2 weeks of
		electronically)	receiving comments
			from the TO COR
	71.1		on initial draft
	Final report	1 copy in Word (delivered	Within 1 week of
		electronically)	receiving comments
			from the TO COR
TD 1.2	T '.' 1 1 C	1 ' 37 1/11' 1	on the revised draft
Task 3:	Initial draft report	1 copy in Word (delivered	Within one month
		electronically)	of delivering Task 2
			initial draft report to the TO COR.
	Davisad dueft manage	1 comy in Ward (daliyanad	Within 2 weeks of
	Revised draft report	1 copy in Word (delivered electronically)	
		electronically)	receiving comments from the TO COR
			on initial draft
	Final report	1 copy in Word (delivered	Within 1 week of
	Timar report	electronically)	receiving comments
		creetromeany)	from the TO COR
			on the revised draft
Task 4:	Initial draft report	1 copy in Word (delivered	Within one month
Tubit II	initial dialiticpoit	electronically)	of delivering Task 3
		electromeany)	initial draft report to
			the TO COR.
	Revised draft report	1 copy in Word (delivered	Within 2 weeks of
		electronically)	receiving comments
			from the TO COR
			on initial draft
	Final report	1 copy in Word (delivered	Within 1 week of
	•	electronically)	receiving comments
			from the TO COR
			on the revised draft
Task 5:	Initial draft report	1 copy in Word (delivered	Within one month

	1	1 , 11)	C 1 1: : TD 1 4
		electronically)	of delivering Task 4
			initial draft report to
			the TO COR, but no
			later than November
			30, 2012.
	Revised draft report	1 copy in Word (delivered	Within 2 weeks of
		electronically)	receiving comments
			from the TO COR
			on initial draft
	Final report	1 copy in Word (delivered	Within 1 week of
		electronically)	receiving comments
		3,	from the TO COR
			on the revised draft
Task 6:	Initial draft report	1 copy in Word (delivered	Within one month
		electronically)	after the public
			release date of
			LEED 2012 but no
			later than December
			31, 2012
	Revised draft report	1 copy in Word (delivered	Within 2 weeks of
	Revised draft report	electronically)	receiving comments
		ciectionicany)	from the TO COR
			on initial draft
	Final report	1 copy in Word (delivered	Within 1 week of
	Final Teport	* · · · · · · · · · · · · · · · · · · ·	
		electronically)	receiving comments
			from the TO COR
- 1 -	7 11 1 1 0		on the revised draft
Task 7:	Initial draft report	1 copy in Word (delivered	Within one month
		electronically)	after the public
			release date of
			LEED 2012 but no
			later than December
			31, 2012
	Revised draft report	1 copy in Word (delivered	Within 2 weeks of
		electronically)	receiving comments
			from the TO COR
			on initial draft
	Final report	1 copy in Word (delivered	Within 1 week of
	_	electronically)	receiving comments
		-	from the TO COR
			on the revised draft